

Water Conservation Workshop



City of El Mirage - Public Works Department
January 30, 2019 - El Mirage Senior Center

Tonight's Presentation

- Where does our water come from?
 - - Derek Castañeda, Environmental Compliance Coordinator
- Residential water use tips
 - Cason Chambers, Customer Service Manager
- Landscape water use tips
 - Wayne Smith, Operations Superintendent
- Question and Answer Session



Introduction to Water in the Valley

Derek Castañeda, Environmental Compliance Coordinator

Colorado River

Aquifer System

Importance of Conservation

Valley Water Sources

- Surface Water
 - Colorado River (CAP)
 - Salt/Verde River (SRP)



Valley Water Sources

- Reclaimed Water (WRF)



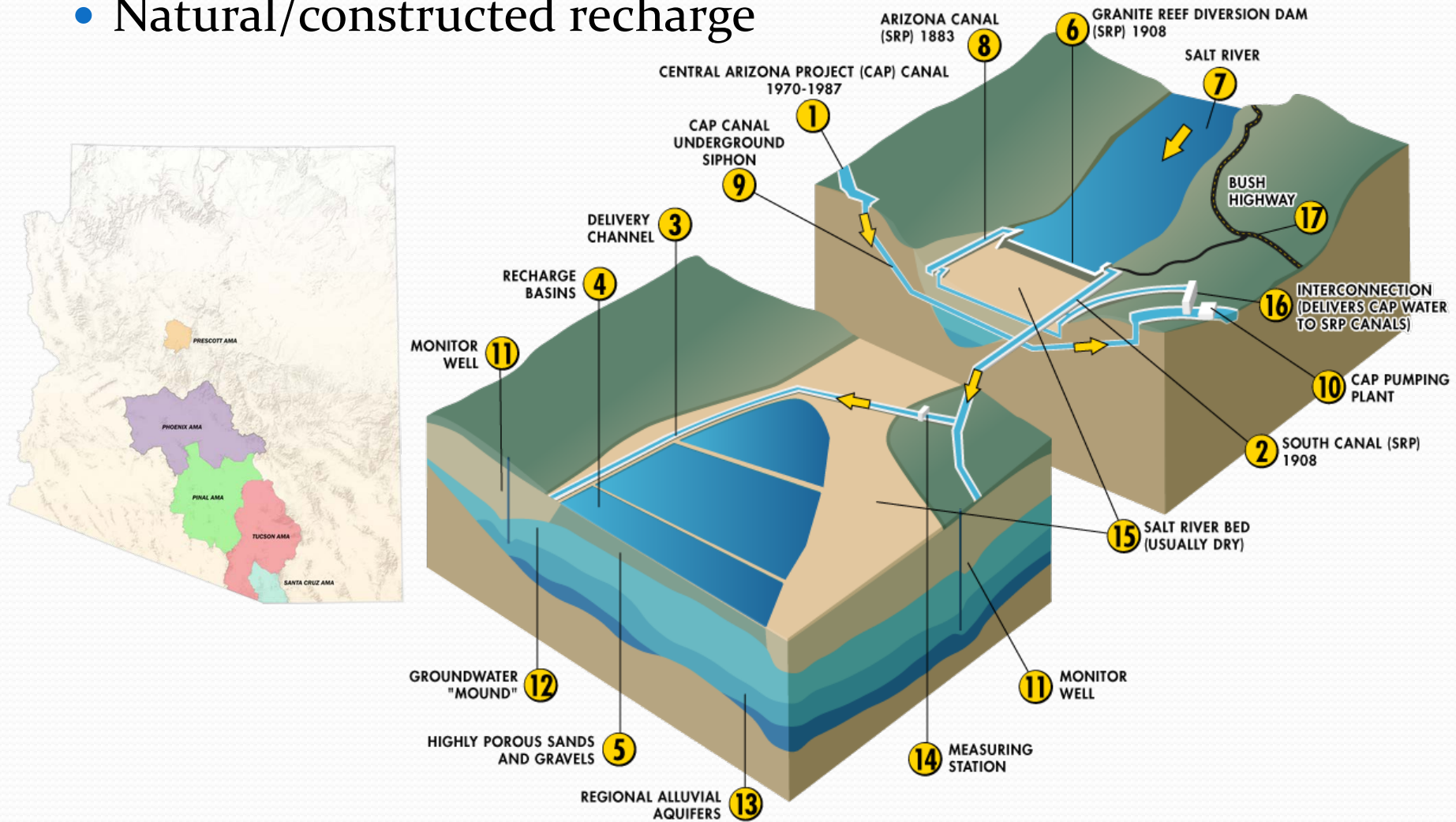
Valley Water Sources

- Groundwater (Wells)



Aquifer (Groundwater)

- El Mirage Drinking Water Source
 - Natural/constructed recharge



Conservation

- Limited resources in desert
- Historic evidence of past droughts
- Conservation saves for the future and prevents forced reductions/limits

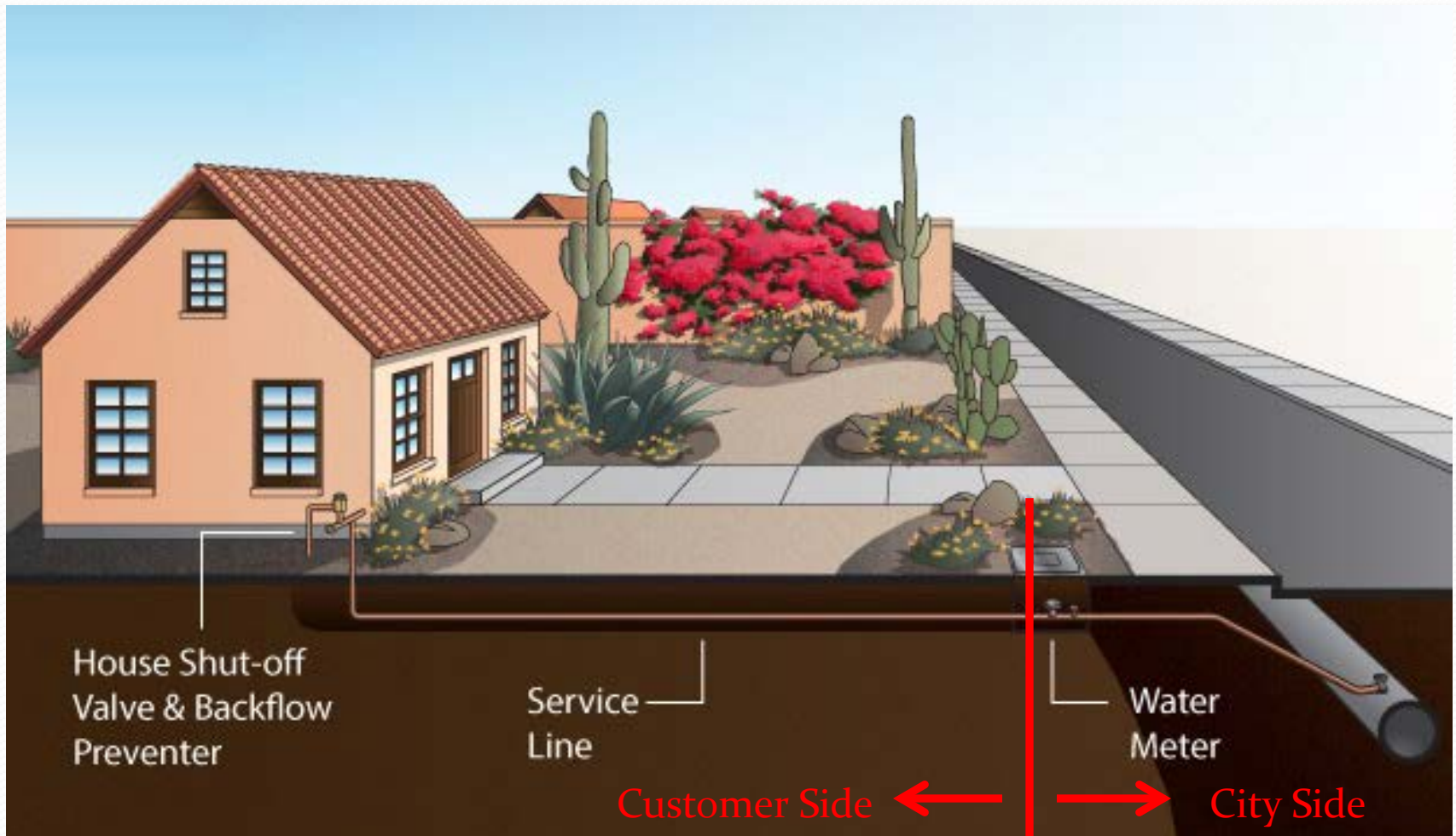


Residential Water Use Tips

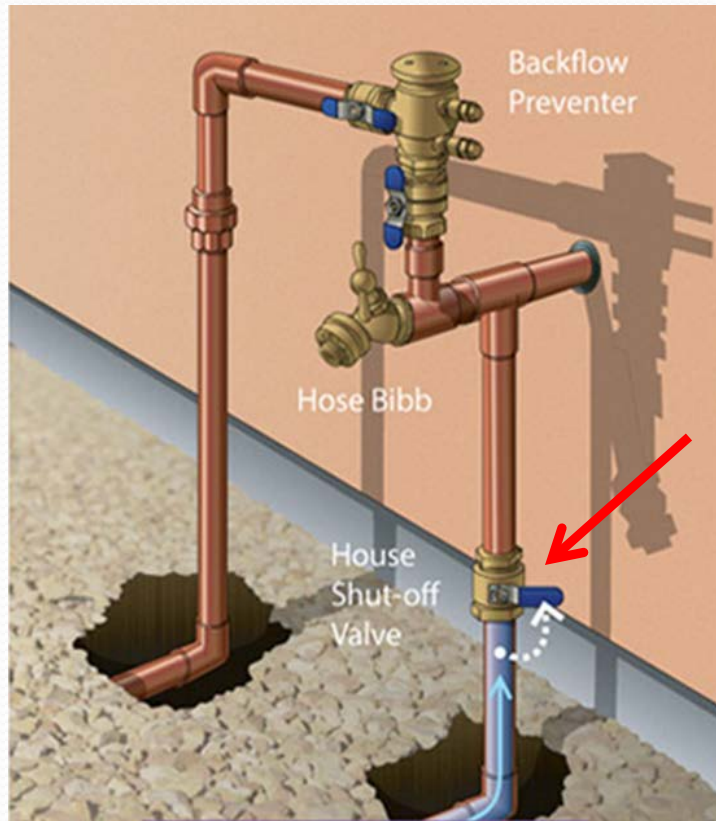
Cason Chambers, Customer Service Manager

- Main water valve
- Finding and reading your water meter
- Water leaks

Typical Water Service Line



Residential Main Water Valve



- Typically found on exterior of home
- Valve stops water flow into the home
- Ideal for quick and immediate water shutoff

Locating Your Meter



- Typically at the front of the home near the sidewalk.
- More historic homes may be in backyard or alley.

Reading Your Meter



- Number dials are for our use in billing consumption.
- Watch the red arrow. If it is spinning then water is actively flowing through the meter.

Checking For Water Leaks

INDICATION OF A LEAK

- Higher-than-normal water bill/usage
- You hear water running in the walls when nothing should be on
- Puddling in yard, soft marshy ground, or grass with patches of greener grass

FINDING A LEAK

- Ensure appliances are functioning correctly
- Check irrigation timer, and run system when you can watch.
- **USE YOUR METER!!**

Landscape Water Conservation

Wayne Smith, City of El Mirage
Public Works
Operations Superintendent

How much should I water?

- Do's and Don'ts of Watering
- **Don't** - Water everyday
- **Do** – Water your plants longer but less often
- **Don't** - Water in the middle of the day
- **Do** – Water early in the morning when evaporation is at its lowest
- **Don't** – Water trees and shrubs the same as lawn
- **Do** – Separate plants so each type can be watered separately

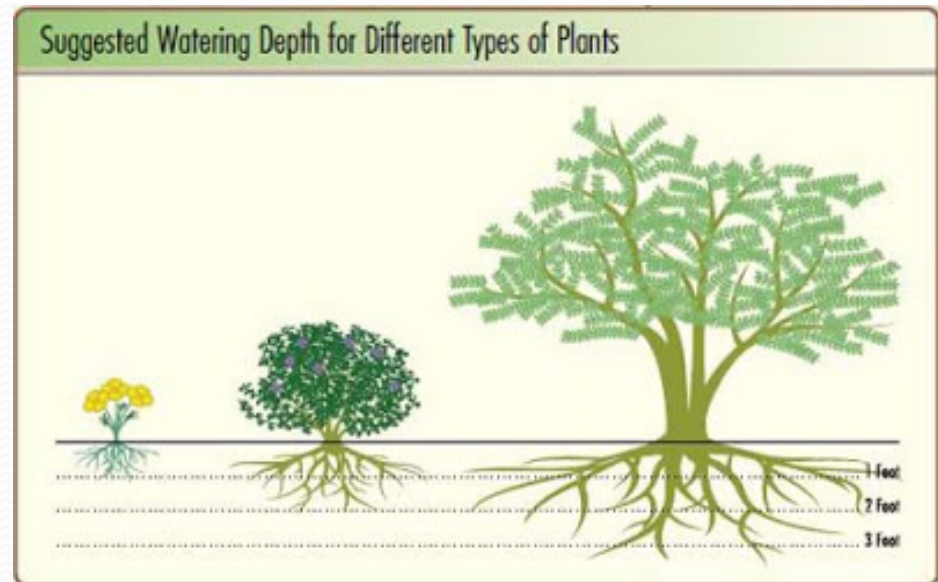
How much should I water?



How much should I Water?

- How deep do roots grow? 1-2-3 Rule
- 1 foot – small plants (groundcovers, cacti, annuals)
- 2 feet – medium plants (shrubs)
- 3 feet – large plants (trees)

- What about grass?
- 6 – 10 inches



How much should I water?

- To determine the amount of water to put on trees and shrubs –
- Know the size of your drip emitters
- Know the size of your plants
- Go to <https://wateruseitwisely.com/>
- Input information in form and calculate
- For more information
<https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1298-2017.pdf>

How much should I water?



LANDSCAPE WATERING GUIDELINES

How Much & How Often Water to the outer edge of the plant's canopy and to the depth indicated. Watering frequency will vary depending on season, plant type, weather and soil.		Seasonal Frequency — Days Between Waterings				Water This Deeply (Typical Root Depth)
		Spring Mar - May	Summer May - Oct	Fall Oct - Dec	Winter Dec - Mar	
Trees	Desert adapted	14-30 days	7-21 days	14-30 days	30-60 days	24-36 inches
	High water use	7-12 days	7-10 days	7-12 days	14-30 days	24-36 inches
Shrubs	Desert adapted	14-30 days	7-21 days	14-30 days	30-45 days	18-24 inches
	High water use	7-10 days	5-7 days	7-10 days	10-14 days	18-24 inches
Groundcovers & Vines	Desert adapted	14-30 days	7-21 days	14-30 days	21-45 days	8-12 inches
	High water use	7-10 days	2-5 days	7-10 days	10-14 days	8-12 inches
Cacti and Succulents		21-45 days	14-30 days	21-45 days	if needed	8-12 inches
Annuals		3-7 days	2-5 days	3-7 days	5-10 days	8-12 inches
Warm Season Grass		4-14 days	3-6 days	6-21 days	15-30 days	6-10 inches
Cool Season Grass		3-7 days	none	3-10 days	7-14 days	6-10 inches

These guidelines are for established plants (1 year for shrubs, 3 years for trees). Additional water is needed for new plantings or unusually hot or dry weather. Less water is needed during cool or rainy weather. Drip run times are typically 2 hours or more for each watering.

Xeriscaping 101



- Xeriscaping vs Zeroscaping
- <https://www.amwua.org/what-you-can-do/landscape-and-garden>
- People often believe xeriscaping is nothing but boring cactus and rocks. It is quite often the opposite.
- Xeriscaping can be lush



Xeriscaping 101

- Design with low water use plants
- <https://www.amwua.org/plants/>



Xeriscaping 101

- Use smaller appropriate turf areas or artificial turf



Xeriscaping 101



- Design efficient irrigation system with drip emitters



Xeriscaping 101

- Use mulches – Granite, wood fiber etc.



Xeriscaping 101



- Sustainable landscape maintenance

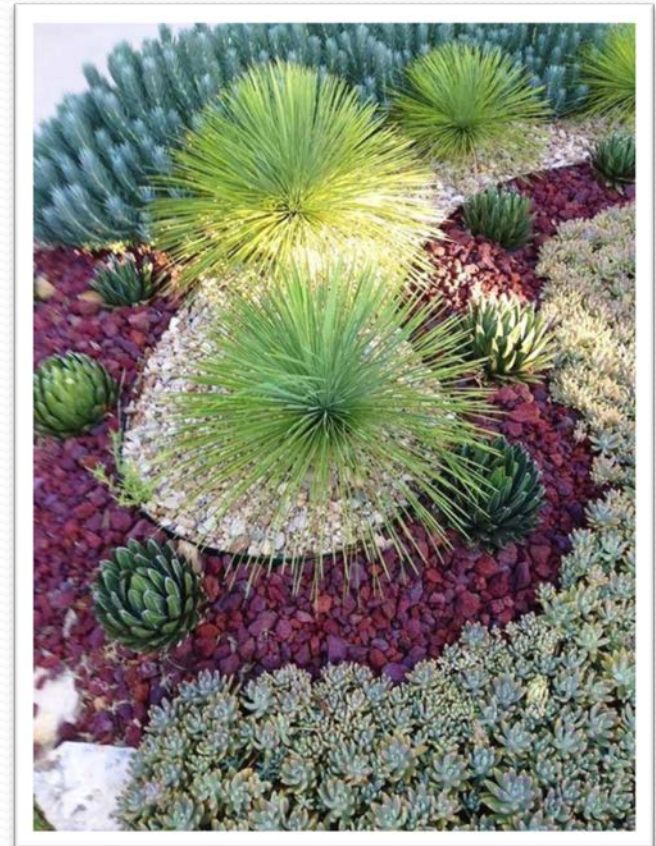


- [http://www.amwua.org/landscape/landscape principles.html](http://www.amwua.org/landscape/landscape_principles.html)

Low Water use Plant Material



- <http://www.amwua.org/plants/>



Water Conservation Workshop



Thank You!

Questions?